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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/688,474	10/16/2003	John M. Curotto	CURO-1001-us0	2190

7590 08/21/2006

Gideon Gimlan  
MacPHERSON KWOK CHEN & HEID LLP  
Suite 226  
1762 Technology Drive  
San Jose, CA 95110

EXAMINER

KEENAN, JAMES W

ART UNIT	PAPER NUMBER
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3652

DATE MAILED: 08/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/688,474	<b>Applicant(s)</b> CUROTTO ET AL.	
	<b>Examiner</b> James Keenan	<b>Art Unit</b> 3652	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 07 June 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-15,20-26 and 43-76 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1,6-11,13-15,22-26, and 43-47 is/are allowed.
- 6) ☒ Claim(s) 2-5,12,20,21 and 48-76 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>4/7/06</u> . | 6) <input type="checkbox"/> Other: _____  |

1. The references crossed-out on the IDS filed 4/7/06 were previously cited by the examiner. All references have been considered.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. Claims 2-5, 12, 20-21 and 48-67 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 2, despite applicant's amendment, it is still not clear what is meant by "short dump collisions of the rear part of the robotic arm" (note that "the rear part ..." lacks antecedent basis).

Claims 3-5 are rejected only due to their dependency on claim 2.

In claim 12, "mechanically driving a retractable lowering" is still not understood, despite applicant's contention that the article "a" was previously missing.

In claim 20, line 7, regarding the recitation of "when supported by a supplied fork lift means"; it is still unclear if this is a positive recitation. Despite applicant's comments that it is not an essential part of the invention, the use of the term "supported" rather than "adapted to be ..." or "supportable" indicates otherwise. Note that the example used in applicant's citation of *Orthokinetics* uses the term "insertable", not "inserted".

Similar language in claim 21 is also indefinite.

In claim 48, line 4, it is not clear what is meant by "curb-side distances", in that the scope of the claim is directed only to a robotic arm and refuse container.

Similar language in claims 49+ is also indefinite. For example, claim 50 positively recites that the "vehicle lifts the combination", but the vehicle is merely set forth as part of a *for use* statement in claim 48. Similarly, claim 51 recites a "piston coupled to ... said lift arms".

In claim 52, it is not clear what is meant by "toward-curb-side heading".

In claims 52 and 54-57, "grasper" is misspelled.

In claim 63, "wraps adjacent" is not understood.

In claim 67, line 3, "in modular fashion" is vague.

4. Claims 48-57, 61, 62, 65, and 67-75 are rejected under 35 U.S.C. 102(b) as being anticipated by Zopf (US 5,607,277), previously cited.

Zopf, as previously noted, shows a fork-liftable refuse container 25 and a side-loading robotic arm mechanism 44 for use with a front-loading, waste collecting vehicle, wherein the major mass portion of the arm is mounted rearward of at least the front "refuse-containing volume" of the container, as broadly claimed, inasmuch as a wall divides the container into two separate volumes, and wherein the container has fork-receiving pocket means 42 attached thereto which extend rearward of the wall 38.

Re claims 49 and 61, see figs. 4 and 7 and note that the rear portion of the pocket 42 can be considered a "spacer", as broadly claimed.

Re claim 50, note col. 4, lines 15-26.

Re claim 51, a container receiving piston (unlabeled) can clearly be seen in fig. 1.

Re claim 52, since no specific structural limitations are claimed, the grasper 122, 123 of the robotic arm is considered to have a "clenched digits grasping mode" and a "spread-open digits nongrasp mode". Also note fig. 7.

Re claim 53, note actuator 50.

Re claims 54 and 56, note actuator 144 which at least assists in lifting the grasper.

Re claims 55 and 57, note actuator 120.

Re claim 65, at least a moving mechanical part of the arm mechanism would inherently be "viewable" by a vehicle operator during a refuse collection operation.

Re claim 67, the robotic arm mechanism inherently "detachably attaches" to the container "in modular fashion", as broadly claimed, such that it could be attached to other refuse containers. Note that the scope of the claim requires no specific *means for detaching* and positively recites only a single container; other containers merely being inferentially recited.

Re claims 68, 69, 70, 74, and 75, the broad recitations of a "containment compartment", "holder", "storing unit", "supporting storage", and "containment structure", respectively, fail to define over the front portion of the Zopf intermediate container as noted above.

5. Claims 48-57, 61, 62, 65, and 67-75 are rejected under 35 U.S.C. 102(b) as being anticipated by Christenson (US 5,938,394).

As previously noted, this reference is substantially similar to Zopf.

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6. Claims 48, 62, 65, and 68-76 are rejected under 35 U.S.C. 102(b) as being anticipated by Evans, Jr. (US 3,822,802).

Evans, Jr. shows a refuse collecting vehicle comprising a robotic arm mechanism 50, 55 and intermediate refuse container C into which the arm mechanism can deposit refuse during curb-side collection thereof when the arm and container combination are mounted on the front of a waste collecting vehicle, wherein the arm/container combination are "integrally liftable" and "translatable", as broadly claimed, by virtue of both being mounted on arms 7 attached to the vehicle and are movable as a unit, as seen for example in fig. 10, wherein at least a major mass portion of the arm is disposed rearward of the container during a refuse collection operation.

7. Claims 1, 6-11, 13-15, 22-26, and 43-47 are allowed.

8. Claims 2-5, 12, 20, and 21 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

9. Claims 58-60, 63, 64, and 66 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

10. Applicant's arguments, to whatever extent they may apply to new claims 48-75 (no arguments specifically directed to these claims were presented), have been considered but are moot in view of the new ground(s) of rejection.

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

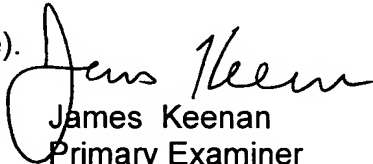
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Keenan whose telephone number is 571-272-6925. The examiner can normally be reached on (schedule varies).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eileen Lillis can be reached on 571-272-6928. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
James Keenan  
Primary Examiner  
Art Unit 3652

jwk  
8/17/06